

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A display device substrate, comprising:
one or more pixel electrodes each of which is provided on each intersection of a signal line and a scanning line that are provided on an insulating substrate; and
an interlayer insulating film stacked between the signal line and the pixel electrode, wherein
in view of a vertical direction with respect to a surface of the insulating substrate, the signal line is provided on an area on which the pixel electrode is not provided, and a gap is provided between the signal line and the pixel electrode; and
wherein the signal line is covered by a light shielding film having an insulating property that is provided on contacts the signal line; wherein the interlayer insulating film is provided on the light shielding film; wherein the pixel electrode is provided on the interlayer insulating film; and wherein in view of a vertical direction with respect to the surface of the insulating substrate, a surface of the signal line and the gap provided between the signal line and the pixel electrode are covered by the light shielding film,
wherein in view of a vertical direction with respect to a surface of the insulating substrate, the pixel electrode, the interlayer insulating film, the light-shielding film, and the signal line are provided in this order; and
wherein the gap includes an area in which no voltage is applied to a region between the pixel electrode and the signal line.
2. (Cancelled)

3. (Previously Presented) The display device substrate as set forth in claim 1, wherein the light shielding film is made of resin having an insulating property.

4. (Previously Presented) The display device substrate as set forth in claim 1, further comprising:

an active element provided on each intersection of the signal line and the scanning line;

the light shielding film provided so as to cover at least a surface of the signal line among the signal line, the active element, and the scanning line, wherein

in view of the vertical direction with respect to the surface of the insulating substrate, a gap between the pixel electrodes which are adjacent to each other with the signal line therebetween is covered by the light shielding film.

5. (Original) The display device substrate as set forth in claim 4, wherein the light shielding film is made of resin having an insulating property.

6. (Previously Presented) The display device substrate as set forth in claim 1, further comprising:

an active element provided on each intersection of the signal line and the scanning line; and

the light shielding film being provided so as to cover at least a surface of the signal line among the signal line, the active element, and the scanning line, wherein

in view of the vertical direction with respect to the surface of the insulating substrate, (i) the light shielding film which covers the surface of the signal line film and (ii) the pixel electrode overlap with each other.

7. (Original) The display device substrate as set forth in claim 6, wherein the light shielding film is made of resin having an insulating property.

8. (Previously Presented) The display device substrate as set forth in claim 1, further comprising:

an active element provided on each intersection of the signal line and the scanning line;

a contact hole for allowing the active element and the pixel electrode to be in contact with each other; and

the light shielding film being provided so as to cover surfaces of the active element, the signal line, and the scanning line, wherein

in view of the vertical direction with respect to the surface of the insulating substrate, (i) the light shielding film which covers the surface of the signal line film and (ii) the pixel electrode overlap with each other.

9. (Original) The display device substrate as set forth in claim 8, wherein the light shielding film is made of resin having an insulating property.

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Original) The display device substrate as set forth in claim 1, wherein the gap is set to be within a range of from not less than 1 μ m to not more than 20 μ m.

20. (Original) A liquid crystal display device, comprising the display device substrate as set forth in claim 1.

21. (Previously Presented) A display device substrate, comprising:
plurals pixel electrodes each of which is associated with a respective intersection of a signal line and a scanning line provided on a substrate;
an interlayer insulating film formed between the signal line and the pixel electrode;
wherein in view of a vertical direction with respect to a surface of the substrate, the signal line is provided on an area on which the pixel electrode is not provided whereby a gap is provided between the signal line and the pixel electrode;
wherein the signal line is covered by a light shielding film having an insulating property that is provided on the signal line; wherein the interlayer insulating film is provided on the light shielding film; wherein the pixel electrode is provided on the interlayer insulating film; and wherein in view of a vertical direction with respect to the surface of the insulating substrate, a surface of the signal line and the gap provided between the signal line and the pixel electrode are covered by the light shielding film;
wherein in view of a vertical direction with respect to a surface of the insulating substrate, the pixel electrode, the interlayer insulating film, the light-shielding film, and the signal line are provided in this order;
wherein a size of the gap is related to a desired $\Delta\Delta\beta$ value which is interrelated with display unevenness, the $\Delta\Delta\beta$ value in turn being related to a difference in parasitic capacitance between the pixel electrode and the signal line and affecting a difference in an effective value (Vd) of pixel potential of the pixel electrode;
wherein an upper limit of the size of the gap is 15 μm ; and
wherein the desired $\Delta\Delta\beta$ value is not more than 0.08.

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)

25. (Previously Presented) A display device substrate as set forth in claim 21, wherein the light shielding film covers a signal line associated with a first pixel electrode and is overlapped by a second pixel electrode, the first pixel electrode being directly driven by the signal line and the second pixel electrode not being directly driven by the signal line, an overlap of the second pixel electrode and the light shielding film having a width y , and wherein y is not less than 0.6 μm and not more than 5 μm .

26. (Cancelled)

27. (Cancelled)

28. (Cancelled)

29. (Cancelled)

30. (Cancelled)

31. (Cancelled)

32. (Cancelled)

33. (Currently Amended) A display device substrate, comprising:

plural pixel electrodes each of which is associated with a respective intersection of a signal line and a scanning line provided on a substrate; an interlayer insulating film formed between the signal line and the pixel electrode;

wherein in view of a vertical direction with respect to a surface of the substrate, the signal line is provided on an area on which the pixel electrode is not provided whereby a gap is provided between the signal line and the pixel electrode;

wherein the signal line is covered by a light shielding film having an insulating property that is ~~provided on~~on contacts the signal line; wherein the interlayer insulating film is provided on the light shielding film; wherein the pixel electrode is provided on the interlayer insulating film; wherein in view of a vertical direction with respect to the surface of the insulating substrate, a surface of the signal line and the gap provided between the signal line and the pixel electrode are covered by the light shielding film; and wherein the pixel electrode is provided over at least a portion of the light shielding film;

wherein in view of a vertical direction with respect to a surface of the insulating substrate, the pixel electrode, the interlayer insulating film, the light-shielding film, and the signal line are provided in this order;

wherein the light shielding film covers a signal line associated with a first pixel electrode and is overlapped by a second pixel electrode, the first pixel electrode being directly driven by the signal line and the second pixel electrode not being directly driven by the signal line, an overlap of the second pixel electrode and the light shielding film having a width y ;

wherein in width the gap is not less than $1 \mu\text{m}$ and not more than a value at which display unevenness is not sufficiently improved relative to aperture ratio;

wherein an upper limit of the width of the gap is $15 \mu\text{m}$; and

wherein y is not less than $0.6 \mu\text{m}$ and not more than $5 \mu\text{m}$.

34. (Previously Presented) A display device substrate as set forth in claim 33, further comprising:

an active element provided for each respective intersection of the signal line and the scanning line;

wherein the light shielding film is provided so as to cover at least a surface of the signal line, the active element, and the scanning line.

35. (Cancelled)

36. (Previously Presented) The display device substrate as set forth in claim 1, wherein the gap is provided between the signal line and the pixel electrode for reducing parasitic capacitance between the pixel electrode and the signal line.

37. (Cancelled)

38. (New) A display device substrate as set forth in claim 1, wherein a size of the gap is related to a desired $\Delta\Delta\beta$ value which is interrelated with display unevenness, the $\Delta\Delta\beta$ value in turn being related to a difference in parasitic capacitance between the pixel electrode and the signal line and affecting a difference in an effective value (Vd) of pixel potential of the pixel electrode;

wherein an upper limit of the size of the gap is 15 μm ; and

wherein the desired $\Delta\Delta\beta$ value is not more than 0.08.

39. (New) A display device substrate as set forth in claim 1, wherein the interlayer insulating film contacts the light shielding film and the pixel electrode contacts the interlayer insulating film.

40. (New) A display device substrate as set forth in claim 33, wherein a size of the gap is related to a desired $\Delta\Delta\beta$ value which is interrelated with display unevenness, the $\Delta\Delta\beta$ value in turn being related to a difference in parasitic capacitance between the pixel electrode and the signal line and affecting a difference in an effective value (Vd) of pixel potential of the pixel electrode; and wherein the desired $\Delta\Delta\beta$ value is not more than 0.08.

41. (New) A display device substrate as set forth in claim 33, wherein the interlayer insulating film contacts the light shielding film and the pixel electrode contacts the interlayer insulating film.